

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1. (Currently amended) A method of refolding a ~~first~~ an insoluble, recombinant, ~~eukaryotic glycosyltransferase~~ α (2,3)sialyltransferase (ST3Gal3) protein, wherein the ~~glycosyltransferase~~ ST3Gal3 protein comprises a maltose binding protein domain (MBD), the method comprising the steps of
 - (a) solubilizing the insoluble, recombinant, ~~eukaryotic glycosyltransferase~~ ST3Gal3 protein in a solubilization buffer; and
 - (b) contacting the soluble ~~eukaryotic glycosyltransferase~~ ST3Gal3 protein with a refolding buffer comprising a redox couple to refold the ~~eukaryotic glycosyltransferase~~ ST3Gal3 protein, wherein the refolded ~~eukaryotic glycosyltransferase~~ ST3Gal3 protein catalyzes the transfer of a sialic acid sugar from a donor substrate to an acceptor substrate.
2. (Currently amended) The method of claim 1, wherein the ~~first~~ ~~eukaryotic glycosyltransferase~~ ST3Gal3 protein is truncated to remove all or a portion of a stem region.
3. (Currently amended) The method of claim 1, wherein an unpaired cysteine in the ~~first~~ ~~eukaryotic glycosyltransferase~~ ST3Gal3 protein is removed by substitution with a non-cysteine amino acid.
4. (Cancelled)
5. (Currently amended) The method of claim 1, wherein the ~~first~~ ~~eukaryotic glycosyltransferase~~ ST3Gal3 protein further comprises a purification domain selected from the group consisting of a starch binding domain, a thioredoxin domain, a SUMO domain, a poly-His domain, a myc epitope domain, and a glutathione-S-transferase domain.

6. (Currently amended) The method of claim 1, wherein the ~~first~~ eukaryotic glycosyltransferase ST3Gal3 protein further comprises a self cleaving domain.

7. (Currently amended) The method of claim 1, wherein the ~~first~~ eukaryotic glycosyltransferase ST3Gal3 protein is expressed in a bacterial host cell as an insoluble inclusion body.

8. (Currently amended) The method of claim 1, wherein a second insoluble, recombinant eukaryotic glycosyltransferase is refolded with the ~~first~~ eukaryotic glycosyltransferase ST3Gal3 protein.

9. (Currently amended) The method of claim 8, wherein a third insoluble, recombinant eukaryotic glycosyltransferase is refolded with the ~~first~~ eukaryotic glycosyltransferase ST3Gal3 protein and the second eukaryotic glycosyltransferase.

10. (Original) The method of claim 1, wherein the redox couple is selected from the group consisting of reduced glutathione/oxidized glutathione (GSH/GSSG) and cysteine/ cystamine.

11. (Original) The method of claim 1, wherein the acceptor substrate is selected from a protein, a peptide, a glycoprotein, and a glycopeptide.

12-13. (Cancelled)

14. (Original) The method of claim 12, wherein the donor substrate is a CMP-sialic acid PEG molecule and the acceptor substrate is selected from a protein, a peptide, a glycoprotein, and a glycopeptide.

15-30. (Cancelled)